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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/600,860

06/20/2003

Hiroyuki Oka

FP03-001US

6408

7590

05/17/2004

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EXAMINER

HYEON, HAE M

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 05/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/600,860

Applicant(s)

OKA, HIROYUKI

Examiner

Hae M Hyeon

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/20/03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the inner-side waterproof rib projecting from a front surface of the rubber plug and the outer-side waterproof rib projecting from a rear surface of the rubber plug must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

3. Claims 6 and 10 are objected to because of the following informalities:

“water proof” recited in line 2 of claims 6 and 10 should be -- waterproof --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1, 2, and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1 and 8 recite that at least one inner-side waterproof rib is projecting from the front surface of the rubber plug and claim 2 recites that at least one outer-side waterproof rib is projecting from a rear surface of the rubber plug. However, the drawings and the specification of the present application do not show or explain the rubber plug having the inner-side or outer side waterproof rib.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 5, and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Gehrke et al (6,095,860).

Gehrke discloses a waterproof connector comprising a connector housing 1 having a plurality of cavities 4, a rubber plug 5 having through-holes 10, and a rubber plug hold-down member 14 having a plurality of open portions 22, outer seal lips 18. The connector housing 1

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has an inner-side waterproof rib 3 projecting from a rear surface of the connector housing 1, which is pressed against the rubber plug 5 to cut off a water penetrating path passing inwards through a peripheral portion of the rubber plug.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-4, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gehrke in view of Maejima et al (5,145,410).

While Gehrke discloses the inner-side waterproof rib, but Gehrke does not disclose an outer-side waterproof rib projecting from a front surface of the rubber plug hold-down member to cut off a water penetration path in an area from the open portions of the rubber plug hold-down member. Also, the waterproof rib of Gehrke is not comprised of a plurality of waterproof ribs surrounding regions corresponding respectively to rear open ends of the cavities 4.

Maejima discloses a waterproof connector 29 comprising a housing 34 having a plurality of cavities 35 and an inner-side waterproof rib 37 projecting from a rear surface of the connector housing 34, which is comprised of a plurality of waterproof ribs surrounding regions corresponding respective to rear open ends of the connector housing 34. The connector 29 also includes a rubber plug 31 having seal lips 31a and a plurality of waterproof ribs that presses against the rear surface of the connector housing 34 and engages the inner-side waterproof rib 37

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of the connector housing 34 to cut off water penetration into the connector housing 34. The inner-side waterproof ribs 37 engage grooves 43 formed between the waterproof ribs of the rubber plug 31 to prevent holes of the rubber plug 31 from deforming or shifting from the rear surface of the housing. Thus, the rubber plug provides good waterproofness.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the waterproof ribs taught by Gehrke such that it would have a plurality of waterproof ribs as taught by Maejima to prevent holes of a rubber plug from deforming or shifting to provide good waterproofing of the connector.

Regarding to the outer-side waterproof rib, it only deals with a duplication of parts on the outer side. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 5,538,441 by Paolucci et al., US Patent No. 6,341,983 B1 by Crawford et al., and US Patent No. 6,722,922 B2 by Cykon et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M Hyeon whose AU is 2839 and whose telephone number is 571-272-2093. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the telephone number 571-272-2800 ext 39.

Any response to this action may be mailed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

For additional information regarding this new address, which was effective May 1, 2003, see *Correspondence with the United States Patent and Trademark Office*, 68 Fed. Reg. 14332 (March 25, 2003).

Hae M Hyeon

Examiner

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hnh

hnh

Hae Moon Hyeon